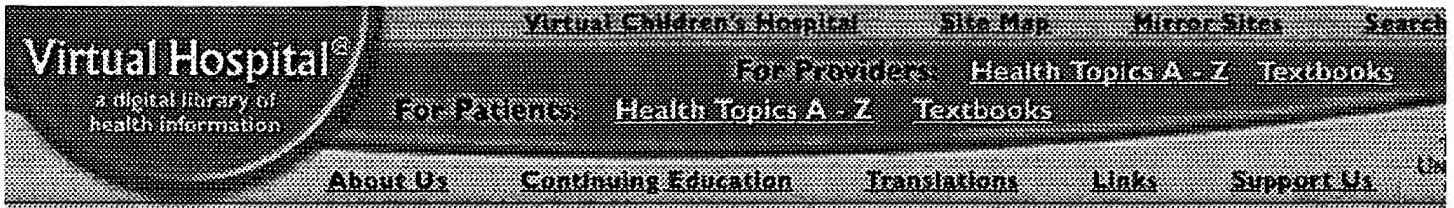




American Venous Forum

Blood flows into the leg through blood vessels called **arteries**. These vessels have thick walls, divide as do the branches of a tree, diminish in size, and eventually terminate in tiny single-cell-thick vessels called **capillaries**. At the capillary level nutrients and oxygen are supplied to the muscles, bones, tendons, joints, other tissues, and skin. Also within these tiny vessels, waste products are exchanged and be carried back to the heart via a tree of reverse branching.

Blood vessels that return the nutritionally depleted blood to the heart are called **veins**. The veins have thick walls but have the capacity to assume a much larger diameter when filled. **Superficial veins** lie above the muscles of the leg. They are the **saphenous veins** and their branches. Much larger veins, **deep veins**, lie deep within the muscle compartments and carry most of the blood out of the leg. The deep veins generally follow the course of the associated arteries. The **tibial** or **peroneal vein** is located in the calf, the **popliteal vein** is located behind the knee and the **femoral vein** is located in the thigh. Connections between the superficial and deep veins are called **perforator veins**. These veins have one-way **valves** composed of two leaflets that close together when filled with blood. The closed valve prevents blood from flowing back (**refluxing**) into the leg. If these valves become damaged and fail to function properly (**become incompetent**) blood can become static in the leg. This pressurization of the venous valves is a result of gravity during constant upright pressure and may lead to enlargement of the veins (**varicose veins**), pain, leg swelling, skin discoloration (**hyperpigmentation**), even skin breakdown (**ulcers**).



Illustrated Encyclopedia of Human Anatomic Variation: Opus II: Cardiovascular System

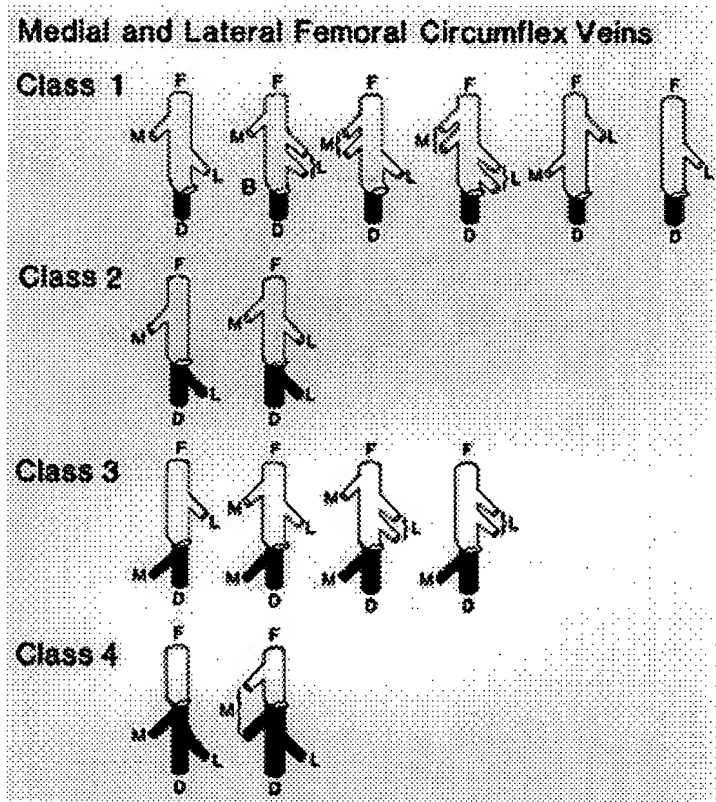
Medial and Lateral Femoral Circumflex Veins

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Circumflex veins of the thigh: modes of termination. Based on a study of 279 cadavers, 541 specimens. D, deep femoral vein (shaded black); F, femoral vein (unshaded); L, lateral femoral circumflex vein; M, medial femoral circumflex vein. The deep femoral vein empties into the femoral vein about 8 cm distal to the inguinal ligament.

redrawn from Baird and Cope, 1933.

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